

Page 1 of 6

AUG 0 8 2000

TECH CENTER 1600/2900

1644

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/319,806

DATE: 07/31/2000

TIME: 15:13:02

ENTERED

Input Set : A:\10806-91.app

Output Set: N:\CRF3\07312000\I319806.raw

```
3 <110> APPLICANT: Crameri, Reto
              Hemman, Stefanie
              Blaser, Kurt
      7 <120> TITLE OF INVENTION: Methods for Diagnosis of Allergic Bronchopulmonary
              Aspergillosis
     10 <130> FILE REFERENCE: 10806-93
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/319,806
     13 <141> CURRENT FILING DATE: 1999-08-19
     15 <150> PRIOR APPLICATION NUMBER: SE9604815-2
     16 <151> PRIOR FILING DATE: 1996-12-20
     18 <150> PRIOR APPLICATION NUMBER: PCT/SE97/02171
     19 <151> PRIOR FILING DATE: 1997-12-19
     21 <160> NUMBER OF SEQ ID NOS: 8
     23 <170> SOFTWARE: PatentIn Ver. 2.1
     25 <210> SEQ ID NO: 1
     26 <211> LENGTH: 624
     27 <212> TYPE: DNA
     28 <213> ORGANISM: Artificial Sequence
     30 <220> FEATURE:
     31 <223> OTHER INFORMATION: Description of Artificial Sequence: recombinant
              allergan rAsp f6
     32
     34 <400> SEQUENCE: 1
     35 caatacacge teccacecet eccetacece tacgatgece tecaacecta cateteccaa 60
     36 cagatcatgg agetgeacca caaaaageac catcaaacct acgteaatgg cetgaatgce 120
     37 gcactcgagg cgcagaagaa agcggcggaa gccaacgacg tccccaaget cgtctccgtg 180
     38 cagcaagega teaaatteaa eggegggggg cacateaace atteeetett etggaagaat 240
     39 ctggccccgg agaaatccgg gggtggcaag atcgatcagg caccggtcct caaagcagcc 300
     40 atcgagcage gttggggate cttcgataag ttcaaggatg ctttcaacac gaccetgctg 360
     41 ggcattcagg gcagcggatg gggttggtta gtgaccgacg gacccaaggg aaagctagac 420
     42 attaccacaa cccacgacca ggatccggtg accgggggg cccccgtctt tggggtggat 480
     43 atgtgggage atgettaeta cetteagtae ttgaacgaea aageetegta tgecaaggge 540
     44 atotggaacg tgatcaactg ggotgaagcg gagaatcggt acatagcggg tgacaagggt 600
     45 ggacacccat tcatgaagct gtga
     48 <210> SEQ ID NO: 2
     49 <211> LENGTH: 207
     50 <212> TYPE: PRT
     51 <213> ORGANISM: Artificial Sequence
     53 <220> FEATURE:
     54 <223> OTHER INFORMATION: Description of Artificial Sequence: recombinant
              allergen rAsp f6
     57 <400> SEQUENCE: 2
     58 Gln Tyr Thr Leu Pro Pro Leu Pro Tyr Pro Tyr Asp Ala Leu Gln Pro
                                             10
        1
     61 Tyr Ile Ser Gln Gln Ile Met Glu Leu His His Lys Lys His His Gln
                                         25
                                                             30
                     20
     64 Thr Tyr Val Asn Gly Leu Asn Ala Ala Leu Glu Ala Gln Lys Lys Ala
```

40

45

35



TEHN WENTER 1600/2900

RAW SEQUENCE LISTING DATE: 07/31/2000 PATENT APPLICATION: US/09/319,806 TIME: 15:13:02

Input Set : A:\10806-91.app

Output Set: N:\CRF3\07312000\I319806.raw

```
67 Ala Glu Ala Asn Asp Val Pro Lys Leu Val Ser Val Gln Gln Ala Ile
70 Lys Phe Asn Gly Gly Gly His Ile Asn His Ser Leu Phe Trp Lys Asn 71 65 70 80
       50
73 Leu Ala Pro Glu Lys Ser Gly Gly Gly Lys Ile Asp Gln Ala Pro Val
74 85 90 95
76 Leu Lys Ala Ala Ile Glu Gln Arg Trp Gly Ser Phe Asp Lys Phe Lys 77 100 105 110
  Asp Ala Phe Asn Thr Thr Leu Leu Gly Ile Gln Gly Ser Gly Trp Gly 115
82 Trp Leu Val Thr Asp Gly Pro Lys Gly Lys Leu Asp Ile Thr Thr Thr 83 130 135
85 His Asp Gln Asp Pro Val Thr Gly Ala Ala Pro Val Phe Gly Val Asp 86 145 150 160
88 Met Trp Glu His Ala Tyr Tyr Leu Gln Tyr Leu Asn Asp Lys Ala Ser
86 145
                                      170
                 165
91 Tyr Ala Lys Gly Ile Trp Asn Val Ile Asn Trp Ala Glu Ala Glu Asn
92 180 185 190
94 Arg Tyr Ile Ala Gly Asp Lys Gly Gly His Pro Phe Met Lys Leu
           195
98 <210> SEQ ID NO: 3
99 <211> LENGTH: 861
100 <212> TYPE: DNA
101 <213> ORGANISM: Artificial Sequence
104 <223> OTHER INFORMATION: Description of Artificial Sequence: recombinant
          allergen rAsp f4
105
 107 <400> SEQUENCE: 3
108 ggcgaggtcg gcgacactgt ctacgctact ataaacggtg tcctcgtctc gtggatcaac 60
 109 gagtggtccg gcgaggctaa gacctccgac gctcccgtct ctcaggctac tcccgtcagc 120
 110 aacgctgtgg ctgccgccgc cgccgcttct actccggagc ccagctcttc ccactccgac 180
 111 agttetteat ceteeggegt eteegeegae tggaccaaca eecetgeega aggegagtae 240
 112 tgcactgacg gcttcggtgg caggaccgaa cccagcggct ccggtatctt ctacaagggc 300
113 aacgttggta aaccctgggg cagcaacatc atcgaggtct cccccgagaa cgccaagaag 360
 114 tacaagcacg tegeteagtt tgttggeage gacactgace cetggacegt tgtettetgg 420
 115 aacaagatcg gccccgatgg tggccttact ggctggtacg gtaactccgc tetgaccete 480
 116 cacctcgagg ccggtgagac caagtacgtg gcattcgacg agaactccca gggtgcctgg 540
 117 ggcgccgcaa agggcgacga gctgcccaag gaccagtttg gtgggtactc ttgcacctgg 600
 118 ggtgagttcg actttgacag caaaatcaac cacggctggt ctggctggga cgtgtccgcc 660
 119 attcaggccg agaatgccca ccatgaggtc cagggtatga agatctgcaa tcacgccggc 720
 120 gagetetget ccatcatete ecaeggtett tecaaggtea ttgaegeeta caetgetgat 780
 121 etggccggtg tcgatggcat tggtggcaag gtcgtccctg gccctacccg tctggtcgtc 840
 122 aacctcgact acaaggagta g
 125 <210> SEQ ID NO: 4
 126 <211> LENGTH: 286
 127 <212> TYPE: PRT
 128 <213> ORGANISM: Artificial Sequence
 130 <220> FEATURE:
 131 <223> OTHER INFORMATION: Description of Artificial Sequence: recombinant
```



AUG 0 8 2000

TECH CENTER 1600/2900

RAW SEQUENCE LISTING DATE: 07/31/2000 PATENT APPLICATION: US/09/319,806 TIME: 15:13:02

Input Set: A:\10806-91.app
Output Set: N:\CRF3\07312000\I319806.raw

allergan rAsp f4 134 <400> SEQUENCE: 4 135 Gly Glu Val Gly Asp Thr Val Tyr Ala Thr Ile Asn Gly Val Leu Val 136 1 5 10 15 138 Ser Trp Ile Asn Glu Trp Ser Gly Glu Ala Lys Thr Ser Asp Ala Pro 139 20 25 30 141 Val Ser Gln Ala Thr Pro Val Ser Asn Ala Val Ala Ala Ala Ala Ala 142 35 40 45 144 Ala Ser Thr Pro Glu Pro Ser Ser Ser His Ser Asp Ser Ser Ser Ser 145 50 55 60 147 Ser Gly Val Ser Ala Asp Trp Thr Asn Thr Pro Ala Glu Gly Glu Tyr 148 65 70 75 80 150 Cys Thr Asp Gly Phe Gly Gly Arg Thr Glu Pro Ser Gly Ser Gly Ile 151 85 90 95 153 Phe Tyr Lys Gly Asn Val Gly Lys Pro Trp Gly Ser Asn Ile Ile Glu
154 100 105 110 156 Val Ser Pro Glu Asn Ala Lys Lys Tyr Lys His Val Ala Gln Phe Val 157 115 120 125 159 Gly Ser Asp Thr Asp Pro Trp Thr Val Val Phe Trp Asn Lys Ile Gly
160 130 135 140 162 Pro Asp Gly Gly Leu Thr Gly Trp Tyr Gly Asn Ser Ala Leu Thr Leu 163 145 150 150 155 165 His Leu Glu Ala Gly Glu Thr Lys Tyr Val Ala Phe Asp Glu Asn Ser 166 165 170 175 168 Gln Gly Ala Trp Gly Ala Ala Lys Gly Asp Glu Leu Pro Lys Asp Gln 169 180 185 190 171 Phe Gly Gly Tyr Ser Cys Thr Trp Gly Glu Phe Asp Phe Asp Ser Lys 172 195 200 205 174 Ile Asn His Gly Trp Ser Gly Trp Asp Val Ser Ala Ile Gln Ala Glu 175 210 215 220 175 210 177 Asn Ala His His Glu Val Gln Gly Met Lys Ile Cys Asn His Ala Gly 178 225 230 230 240 180 Glu Leu Cys Ser Ile Ile Ser His Gly Leu Ser Lys Val Ile Asp Ala 181 245 250 255 183 Tyr Thr Ala Asp Leu Ala Gly Val Asp Gly Ile Gly Gly Lys Val Val 184 260 265 270 186 Pro Gly Pro Thr Arg Leu Val Val Asn Leu Asp Tyr Lys Glu 187 275 280 285 190 <210> SEQ ID NO: 5 191 <211> LENGTH: 336 192 <212> TYPE: DNA 193 <213> ORGANISM: Artificial Sequence 195'<220> FEATURE: 196 <223> OTHER INFORMATION: Description of Artificial Sequence: recombinant

200 atgaagtace tegeagettt ceteeteete geeettgetg geaacacete eeegteetet 60 201 gaggatgtea aggeegteet etetteegtt ggeattgatg eegatgagga gegeetgaae 120 202 aageteattg etgagetega gggeaaggae eteeaggage teattgeega gggtteeaee 180

allergen rAsp f8

199 <400> SEQUENCE: 5

197

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/319,806 TIME: 15:13:02

Input Set: A:\10806-91.app
Output Set: N:\CRF3\07312000\1319806.raw

203 aagetegett cegtteete eggtggtget geegeegetg eteetgeege tgeeggtgee 240
204 getgeeggtg gtgetgetge teetgeeget aaggagaaga atgaggaga gaaggaggag 300
205 teegaaggag acatgggett eggtetete gaetaa 336

```
205 tecgaegagg acatgggett eggtetette gaetaa
208 <210> SEQ ID NO: 6
209 <211> LENGTH: 111
210 <212> TYPE: PRT
211 <213> ORGANISM: Artificial Sequence
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Description of Artificial Sequence: recombinant
         allergen rAsp f8
217 <400> SEQUENCE: 6
218 Met Lys Tyr Leu Ala Ala Phe Leu Leu Leu Ala Leu Ala Gly Asn Thr
221 Ser Pro Ser Ser Glu Asp Val Lys Ala Val Leu Ser Ser Val Gly Ile
219
                                     25
                20
222
224 Asp Ala Asp Glu Glu Arg Leu Asn Lys Leu Ile Ala Glu Leu Glu Gly 225 35 40 45
227 Lys Asp Leu Gln Glu Leu Ile Ala Glu Gly Ser Thr Lys Leu Ala Ser
                            55
230 Val Pro Ser Gly Gly Ala Ala Ala Ala Pro Ala Ala Ala Gly Ala 231 65 70 75 80
       50
233 Ala Ala Gly Gly Ala Ala Pro Ala Ala Lys Glu Lys Asn Glu Glu
                    85
236 Glu Lys Glu Glu Ser Asp Glu Asp Met Gly Phe Gly Leu Phe Asp
                                    105
                100
237
240 <210> SEQ ID NO: 7
241 <211> LENGTH: 8
242 <212> TYPE: PRT
243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: Description of Artificial Sequence: residue for
          attachment to C-terminus
247
 249 <400> SEQUENCE: 7
 250 Val Glu His His His His His His
                      5
 254 <210> SEQ ID NO: 8
 255 <211> LENGTH: 11
 256 <212> TYPE: PRT
 257 <213> ORGANISM: Artificial Sequence
260 <223> OTHER INFORMATION: Description of Artificial Sequence: residue for
          attachment to N-terminal end
 261.
 263 <400> SEQUENCE: 8
 264 Met Arg Gly Ser His His His His His Met
 265
```





AUG 0 8 2000

TECH CENTER 1600/2900

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/319,806

DATE: 07/31/2000 TIME: 15:13:03

Input Set : A:\10806-91.app
Output Set: N:\CRF3\07312000\I319806.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application Number